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Public Health
Seattle & King County

October 11, 2017

Anne Soiza
Assistant Director
Division of Occupational Safety and Health (DOSH)
Washington State Department of Labor & Industries (L&I)
PO Box 44000
Olympia, WA 98504-4000

Dear Ms. Soiza,

Thank you for the opportunity to provide input on L&I's work to update Washington State's occupational lead standards. I appreciate L&I's thoughtful response to Public Health – Seattle & King County's (PHSKC) request to update the outdated rules.

Overall, the draft updated occupational lead rule is significantly more protective of worker health than the existing rules, and largely reflects our current understanding of lead's health effects. PHSKC supports L&I's proposal to combine the two existing rules into one, in order to provide consistent protection for employees across all sectors.

We also appreciate your work to gather stakeholder input on the first draft of the proposed updated rule. **PHSKC wishes to offer comment and suggestions for further improvement in worker safety** on the following aspects of the draft updated rule:

<u>Blood Lead Levels</u>

- L&I's proposed blood lead level (BLL) regulations are appropriate, protective of human health, and consistent with the best available science.
- **Consider adding a provision** that employees with elevated BLLs be advised to also have their family members (cohabitants) tested. Take-home lead has poisoned families in past Washington state incidents, particularly children, who are at highest risk for adverse health effects. Legal precedent exists for employers' liability for secondhand exposure to toxic chemicals.
- In WAC 296-857-10050, presumed exposure levels are presented for a variety of tasks in general industry with recommendations for BLL testing. **PHSKC recommends that** BLL testing also be required for workers performing the following high exposure tasks:
    - Construction, remodeling, or maintenance work in an active lead control area.
    - Spray painting with lead paint.
    - Construction, remodeling, or maintenance work in an active lead control area.

- Using lead containing mortar; lead burning.
- Where lead containing coatings or paint are present: Rivet busting; power tool cleaning without dust collection systems; cleanup activities where dry expendable abrasives are used; and abrasive blasting enclosure movement and removal.
- Where lead containing coatings or paint are present: Abrasive blasting; Welding; Cutting; and Torch burning.
- Where lead containing coatings or paint have been removed: Abrasive blasting; Welding; Cutting; and Torch burning.
- Where lead containing coatings or paint are present: Abrasive blasting; Welding; Cutting; and Torch burning.

Air Lead Levels

- Air lead levels alone are not reliable measures of lead exposure. Results of testing surfaces and lead content of materials should trigger BLL monitoring, in addition to, or as an alternative to, air lead levels. The draft rule refers to work with materials greater than 20% lead content. Surface sampling and materials lead content should also be emphasized as measures to trigger BLL monitoring.
- DOSH's proposed air lead limits are not sufficiently protective based on reasonable estimates of exposure and resulting BLLs. Using health-based biokinetic modeling, the California Department of Public Health and the California Environmental Protection Agency determined that workplace air lead levels should not exceed an 8-hour time-weighted average (TWA) of 0.5-2.1 □g/m^3 in order to prevent chronic BLLs exceeding 5-10 □g/dL.[1] The Cal/OSHA regulatory discussion draft was thoroughly reviewed by a stakeholder group of industry, construction, labor, public health, and other interests, who sought consensus around the feasibility of achieving these air lead levels. Cal/OSHA ultimately called for an Action Level (AL) of **2 µg/m³** and a Permissible Exposure Limit (PEL) of **10 µg/m³**.[2] Consequently, PHSKC recommends the following air lead levels:
    - Permissible Exposure Limit at 10 µg/m³ TWA
    - Monitoring Level at 2 µg/m³ TWA
- The Monitoring Level should trigger additional protections, which are now required only at Permissible Exposure Limit, including the following:
    - Hygiene and housekeeping practices
    - Signage and training

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[1] Revising the Workplace Lead Standards: At-A-Glance. California Department of Public Health, Occupational Lead Poisoning Prevention Program. archive.cdph.ca.gov/programs/olppp/Documents/LeadStdRev-At-A-Glance.pdf.

[2] The California Initiative for an Updated Workplace Lead Standard. Dr. Michael Kosnett. January 26, 2016. youtube.com/watch?v=z9V0Az-ES0Q&feature=youtube.

Medical Surveillance

Once an employer is determined to be subject to the lead standard requirements, the following medical surveillance provisions should be strengthened:

- Annual blood pressure measurement and medical condition questionnaire should be available to all employees.
- Blood lead level testing should be available to all employees, regardless of air lead levels.
- Blood lead level testing should be made available at least monthly for the first three months for new employees, and after change to a higher lead exposure task.
- Follow up testing should be available to all employees, at least every six months.

Medical Removal Protection

- During medical removal of an employee, that employee's alternate task should be limited in the following ways:
  - Exposure must be below 2 $\mu g/m^3$ TWA
  - No altering or disturbing lead materials ($\geq$0.5% lead by weight)
- If an employee is placed on medical removal for lead exposure due to a written opinion from a physician (not due to blood lead level), then a written opinion from a physician should also be required before that employee can return to their job. The draft rule as written appears to allow employers to return any employee back to work based on blood lead level alone.

Hygiene

- L&I's requirements for surface testing are potentially more important than air lead monitoring for predicting worker exposure to lead. Using the HUD limit of 4.3 $\mu g/dm^2$, as proposed, is protective and appropriate. PHSKC strongly supports L&I's proposal in this regard.
- **A suggested interval for surface testing should be provided**, for example, monthly surface testing.

Training and Warning Signage

- The rule should be more prescriptive regarding employee training, and should specifically require the following:
  - At least quarterly employee training
  - Participatory and hands on training methods
  - Accessible training formats
  - Training appropriate for the employees' culture, native language, and literacy level
- Signage text should be simplified and also be modified to be more appropriate for employees' culture, language, and literacy level. Signage should also include graphics instead of text where possible.

Thank you again for undertaking this important work with significant public health implications, and for the opportunity to review and comment on the draft updated Washington State Occupational Lead Standards. The updated rule represents a significant step forward in protecting the health of Washington's workers and their families.

We look forward to continuing to work with you and your team and would welcome further dialogue about these comments or any aspect of your draft rule. Please feel free to contact me or our staff with the Local Hazardous Waste Management Program: Dr. Steve Whittaker, Research Services Program Manager (206.263.8499) or Erika Kinno, Policy Liaison (206.477.0942).

Thank you for your consideration.

Sincerely,

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